





SIEVE OF ERATOSTHENES

The operation of the **Sieve of Eratosthenes** suggests that primes should be rarer among the larger integers.

- 1 – 50 : There are 15 primes.
- 50 – 100 : There are 10 primes.

To verify if the two statement above are true, the following table represents the result of the completed Sieve (1 – 100). The multiples of 2 are crossed out by ; the multiples of 3 are crossed out by ; the multiples of 5 are crossed out by ; and the multiples of 7 are crossed out by .

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

1 – 50: The primes are **2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, and 47**. (15 primes)

50 – 100: The primes are **53, 59, 61, 67, 71, 73, 79, 83, 89, and 97**.
(10 primes)